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DISCUSSION

Dr Angeliki Vouyouka (*New York, NY*): The paper was very interesting, but I have a few questions.

From the data that you show us here, the obese class I and the overweight patients compared to the normal and the underweight, they appeared to be healthier. They were more likely to be diabetic and hypertensive; however, they were less likely to be smokers, they have better ASA risk class, and they were less likely to have COPD. So do you think that part of your observation reflects some selection bias among the surgeons, since they were all elective cases, and therefore when they had to operate on obese patients they chose the ones that they were in best health as compared to the rest of them?

Secondly, you have insinuated the answer of this question, but for better clarification, what percentage of the obese patients had endovascular procedures, as compared to normal weight and underweight?

And thirdly, again, in the same spirit with the first question, in this data the obese patients, obese class I, and the overweight, they did have higher albumin levels, a fact that again perhaps reflects some selection bias. Do we know patients with low preoperative serum albumin, obese or overweight, how they did compare to the ones with high levels of serum albumin?

I want again to thank the committee for the privilege to discuss this very interesting paper.

Dr Eleftherios Xenos: To answer the second question, we don't have a breakdown between endovascular versus open repair of aneurysms. There is a procedure category that was labeled other and comprised approximately 30% of the patients. It included the peripheral balloon angioplasties and stenting procedures, but I don't have an exact number of how many people had an endovascular versus open general vascular procedure.

And I agree with the observation that there might very well be a selection bias where relatively healthy obese subjects were offered an operation and very sick morbidly obese patients were denied an operation and that might be partially responsible for what we see.

Dr Martin Veller (*Johannesburg, South Africa*): Many of the individuals we treat with a low BMI have such a low BMI as a result of an underlying chronic disease. Were you in any way able to look at this in your study? For example, were the serum albumin levels helpful in differentiating those individuals with a low BMI as a result of a chronic disease from those with a low BMI without a chronic disease?

Dr Xenos: Yes, indeed, it does seem that if somebody is underweight, he's underweight for a reason. Many of our risk factors were highest in underweight patients including disseminated cancer and recent weight loss. There was also a higher incidence of patients with COPD. There was, however, no single etiology for being underweight and having chronic disease.

Dr Starros Kakkos (*Detroit, MI*): Do you think that slightly overweight people are naturally selected to be more resistant to trauma or similar conditions, like surgery?

Dr Xenos: I think it is hard to tell. In our study population, moderate overweight and obese I type patients had the least amount of risk factors.

Dr Kakkos: Probably because the definition and grades of obesity are based on survival statistics.

Dr Xenos: Yes, that is true, the patients were stratified according to their BMI, not survival statistics.